### PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 228 (BERRY ROAD) AND WESTERN PARKWAY IN CHARLES COUNTY. THE WORK IS NECESSITATED BY THE CONSTRUCTION OF ADA RAMPS AND APS FOR THE NORTH, SOUTH AND EAST LEGS OF THE INTERSECTION, MD 228 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

#### INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR BOTH DIRECTIONS OF MD 228. SIDE STREET SPLIT PHASING FOR WESTERN PARKWAY WILL REMAIN. THE FIRE PRE-EMPTION PHASE WILL REMAIN. A NEW CONCURRENT PEDESTRIAN PHASE FOR BOTH LEGS OF WESTERN PARKWAY WILL BE INSTALLED A NEW ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF MD 228 WILL ALSO BE INSTALLED.

# CONTROLLER REQUIREMENTS

THE EXISTING EIGHT-PHASE FULLY-ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED.

### APS NOTES

- TO CROSS WESTERN PARKWAY
  - A WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS WESTERN AT BERRY, WAIT."
  - B. WHEN WALK PHASE BEGINS THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE
- TO CROSS MD 228 (BERRY ROAD)
- A WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS BERRY AT WESTERN, WAIT."
- B. WHEN WALK PHASE BEGINS THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE
- PUSHBUTTONS ARE TO BE LOCATED SO THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM THE FACE OF THE PUSHBUTTON TO THE FACE OF THE PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSABLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG.4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATION UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- ALL APS CENTRAL CONTROL UNITS SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR PROGRAMMING AND TESTING PRIOR TO INSTALLATION, CONTACT, MR. EDWARD RODENHIZER AT 410-787-7650 TO COORDINATE

### EQUIPMENT LIST "A"

A EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

DESCRIPTION

ITEM NO.

**QUANTITY** NONE

<u>DESCRIPTION</u>

# **EQUIPMENT LIST "B"**

<u>QUANTITY</u>

B EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

LS	MAINTENANCE OF TRAFFIC
7 CY	TEST PIT EXCAVATION
200 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
1055 LF	12 IN WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
125 LF	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
6 EA	L.E.D. 16 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD
6 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
2 CY	CONCRETE, FOUNDATION FOR SIGNAL
4 EA	BREAKAWAY PEDESTAL POLE
3 EA	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE
1 EA	ADJUST EXISTING HANDHOLE TO GRADE
55 LF	3 IN SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
LS	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT
3 EA	RELOCATE EXISTING GROUND MOUNTED SIGN AND SUPPORTS
795 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 A.W.G.)
925 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
50 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
4 EA	WI1-2 SIGN (30" X 30") AND WI6-7P(L) SIGN (24" X 12") - GROUND MOUNT
4 EA	W11-2 SIGN (30" X 30") AND W16-7P(R) SIGN (24" X 12") - GROUND MOUNT
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#### **EQUIPMENT LIST "C"**

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY

NONE

QUANTITY **DESCRIPTION** 

R1-2 SIGN (36" X 36") - GROUND MOUNT

4 IN X 4 IN WOOD SUPPORT

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR

## CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

ASSISTANT DISTRICT ENGINEER - TRAFFIC

ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002

MR. JOE HORTY UTILITY ENGINEER

(410) 841-1003

(410) 841-1005

(410) 787-7630

#### CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF TRAFFIC OPERATIONS (410) 787-7631

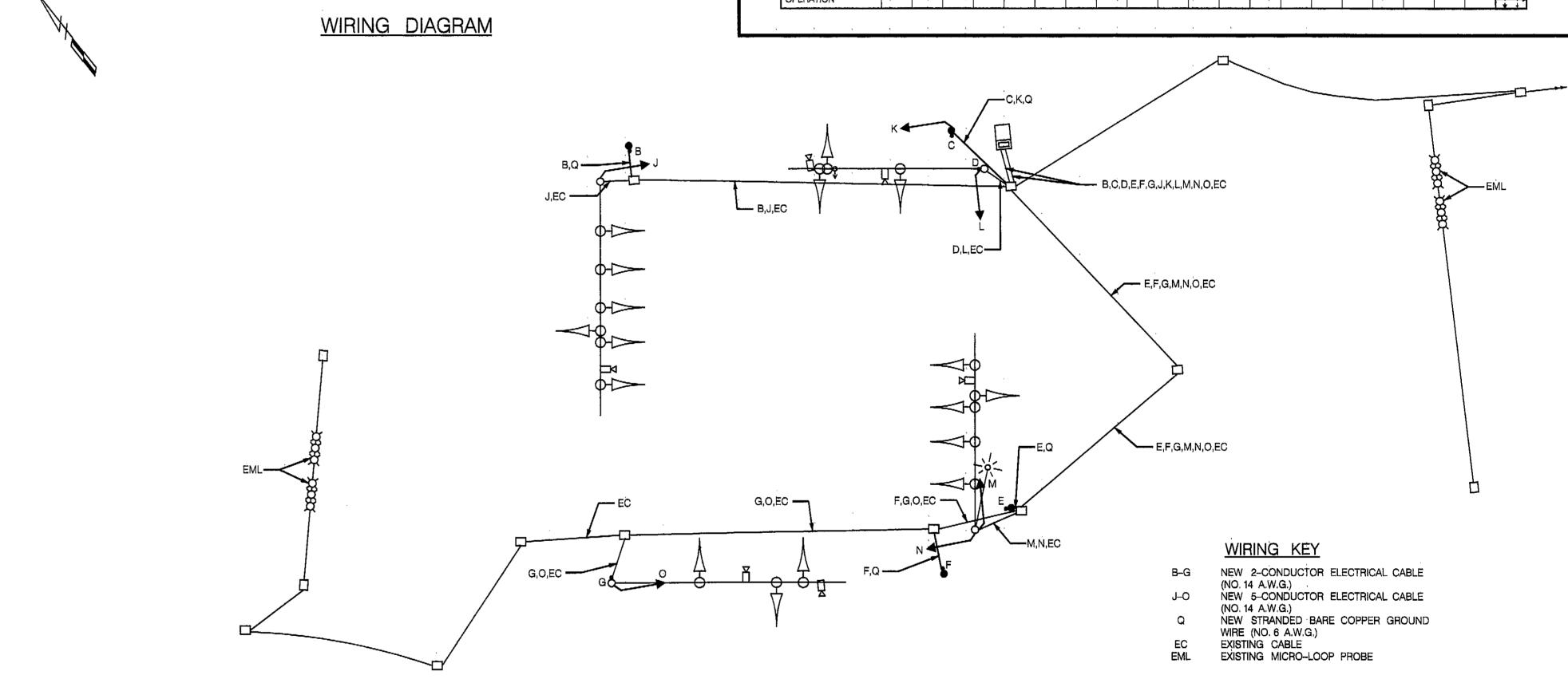
SUPPLY OFFICE SIGNAL SHOP WAREHOUSE

MR. MIKE STOCKER

MR. ED RODENHIZER CHIEF - SIGNAL OPERATIONS SECTION (410) 787-7652

PHASE 1 & 6 PHASE 2 & 6 PED CLEAR | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R − | ← R 2 & 6 CHANGE PHASE 3 4 CHANGE 4 CHANGE |←R-|←R-| R | R | R |←R-|←R-| ←R-| R | R | R | Y | Y | R | R | R | DW | DW | DW FLR-FLR- FLY | FLY | FLY | FLR-FLR-FLR- FLY | FLY | FLY | FLR | FLR | FLR | FLR | FLR | DARK DARK DARK OPERATION

PHASE CHART



TRACKING #: 11-AP-CH-025-XX STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 228 (BERRY ROAD) AND WESTERN PARKWAY

CONCEPTS, INC.

325 Gambrills Road Suite B Gambrills, MD 21054 (410) 923-7101 FAX: (410) 923-6473 EMAIL: TRAFFIC@TRAFFIC~CONCEPTS.COM

CONTRACT NO. BW-996M82 SCALE NONE DATE 2-29-12 DESIGNED BY J.K. SCHMID CHARLES COUNTY J.K, SCHMID 08022805.07 LOGMILE K. SCHMID L-130 T.I.M.S. NO. DRAWING NO. TS - 2625 E GI SHEET NO. 2 OF 2

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WALDORF, MARYLAND GENERAL INFORMATION PLAN